

## CURRICULUM VITAE

1. Family name: Kyriakarakos
2. First names: George
3. Date of birth: 16 August 1979
4. Country and city of residence: Greece, Athens
5. Nationality: Hellenic
6. Education:

| Institution<br>(Date from - Date to)                                                                                   | Degree(s) or Diploma(s) obtained:                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Agricultural University of Athens,<br>Department of Natural Resources<br>and Agricultural Engineering<br>(2014 – 2015) | Post-Doctoral Scholar (part-time)<br>Field: Application of computational intelligence approaches for the energy<br>management of autonomous desalination systems powered by renewables    |
| Agricultural University of Athens,<br>Department of Natural Resources<br>and Agricultural Engineering<br>(2006 – 2014) | Ph.D<br>Ph.D. Dissertation title: "Renewable Energy Autonomous Polygeneration<br>Smartgrids Optimized With Soft Computing Techniques".<br>(Bilingual Thesis written in English and Greek) |
| Agricultural University of Athens,<br>Department of Natural Resources<br>and Agricultural Engineering<br>(2004 – 2006) | MSc in Energy Systems and Renewable Energy Sources<br>MSc thesis title: "Technoeconomic investigation of hydrogen use in<br>renewable energy systems"                                     |
| Agricultural University of Athens,<br>Department of Natural Resources<br>and Agricultural Engineering<br>(1997 – 2004) | Diploma in Agricultural Engineering (5-year studies, diploma equal to MSc<br>in Agricultural Engineering)                                                                                 |

| Institution<br>(Date from - Date to)                                            | Courses completed:                                                        |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| International Monetary Fund through edX<br>(2021)                               | Course:<br>Inclusive Growth                                               |
| Harvard University through edX<br>(2021)                                        | Course:<br>Technology Entrepreneurship: Lab to Market                     |
| International Monetary Fund through edX<br>(2021)                               | Course:<br>Debt Sustainability Framework for Low Income Countries         |
| University of Oxford<br>Blavatnik School of Government<br>through edX<br>(2017) | Course:<br>From Poverty to Prosperity: Understanding Economic Development |
| World Bank Group through edX<br>(2017)                                          | Course:<br>Financing for Development: Unlocking Investment Opportunities  |
| International Monetary Fund through edX<br>(2017)                               | Course:<br>Energy Subsidy Reform                                          |

7. **Language skills:** Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

| Language | Reading       | Speaking | Writing |
|----------|---------------|----------|---------|
| English  | 1             | 1        | 1       |
| German   | 2             | 3        | 3       |
| Spanish  | 2             | 3        | 3       |
| Greek    | Mother tongue |          |         |

- English, - *Cambridge Proficiency in English*
- German - *Zentrale Mittelstufenprüfung, Goethe Institut*
- Spanish, - *Diploma Básico de Español como Lengua Extranjera, Universidad de Salamanca; Certificado de Español como Lengua Extranjera: Nivel Avanzado, Instituto Cervantes*

8. Membership of professional bodies:

- Member of the Geotechnical Chamber of Greece
- Member of the European Society of Agricultural Engineers.
- Member of the Greek Section of the European Society of Agricultural Engineers.

9. **Other skills:** (e.g. Computer literacy, etc.)

- Proficiency in energy systems and autonomous grids simulation, design, sizing and optimization software packages

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| <ul style="list-style-type: none"> <li>▪ TRNSYS</li> <li>▪ Matlab</li> <li>▪ Labview</li> <li>▪ PVSyst</li> <li>▪ GIZ HERA Mini-Grid Sustainability Assessment Tool</li> </ul> | <ul style="list-style-type: none"> <li>▪ HOMER</li> <li>▪ RETScreen</li> <li>▪ PVGIS</li> <li>▪ GenOPT</li> <li>▪ Statistica Neural Networks</li> <li>▪ Minigrad retail tariff tool</li> </ul> |
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- Proficiency in Microsoft software (Windows, MS Word, MS Excel, MS PowerPoint, MS Outlook, MS Visio, MS Publisher, MS Project and MS Access).

10. Years of Work Experience: 21 years

11. Website: <http://www.linkedin.com/in/georgekyr>

12. **Key qualifications:**

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>▪ Hydrogen and renewable synthetic fuel systems.</li> <li>▪ Energy Efficiency policy and regulatory framework development.</li> <li>▪ Energy Efficiency applications with the use of digital/ ICT technologies</li> <li>▪ Distributed generation / Demand side management in microgrids – development of software algorithms and deployment in real systems</li> <li>▪ Digitalization / ICT technologies in the energy sector</li> <li>▪ Rural Electrification</li> <li>▪ Rural Electrification for social infrastructure (health and education)</li> <li>▪ Climate change mitigation technologies</li> <li>▪ Computational Intelligence algorithms (eg. fuzzy logic, fuzzy cognitive maps, particle swarm optimization, grey system theory) for energy management applications</li> <li>▪ Autonomous Polygeneration systems</li> <li>▪ Renewable Energy policy development</li> <li>▪ Energy consumption and weather forecasting approaches (grey systems theory, neural networks)</li> <li>▪ Programmes and Projects Management - (programme documents preparation, proposal writing, project management, reporting, tenders' development and evaluation)</li> <li>▪ Communication strategy development for Renewable Energy and Energy Efficiency projects</li> </ul> | <ul style="list-style-type: none"> <li>▪ AI in the power system</li> <li>▪ Design and sizing of energy systems through particle swarm optimization with the use of software packages (TRNSYS, MATLAB, GenOPT, Homer Energy etc) – Software development for tailored applications</li> <li>▪ Climate change impact measurement</li> <li>▪ Smart-metering and prosumers management through blockchain technologies and peer-to-peer electricity trading.</li> <li>▪ Rural development and use of renewables in agriculture</li> <li>▪ PV water pumping and drip-irrigation</li> <li>▪ Development of energy models concerning renewable energy technologies deployment</li> <li>▪ Development of ICT decision support tools for Energy Policy based on computational intelligence techniques and implementation in web applications</li> <li>▪ Energy efficiency in microgrids - analysis and evaluation</li> <li>▪ Hydrogen systems' integration in microgrids along desalination systems</li> <li>▪ Sea and brackish water desalination with the use of renewable energy sources, water pumping with renewables and integration within microgrids</li> <li>▪ Preparation and implementation of Sustainable Energy Action Plans</li> <li>▪ Environmental and socio-economic assessment and evaluation of renewable energy and energy efficiency projects</li> </ul> |
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13. Specific experience in the region:

| Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Date: from (month / year) to (month / year) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <p><b>Africa:</b> African Union (Missions to Ethiopia/African Union Commission, Namibia/SADC, Cabo Verde/ECOWAS, Egypt/COMESA, Zimbabwe/SADC, Algeria/UMA, Rwanda/ECCAS), SADC (Mission to Finland), Botswana, Egypt, Kenya, Lesotho, Madagascar, Mauritius, Morocco, Mozambique, Namibia, Rwanda, Tanzania, The Gambia, Tunisia, Uganda, Zambia.</p> <p><b>Asia and Middle East:</b> Azerbaijan, China, Jordan, Lebanon, Vietnam</p> <p><b>Europe:</b> Albania, Belgium, Croatia, Cyprus, Czech Republic, France, Finland, Germany, Greece, Italy, Luxembourg, Portugal, Slovenia, Spain, United Kingdom</p> <p><b>North America:</b> USA</p> <p><b>Central and South America:</b> Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Mexico, Panama, Paraguay, Trinidad and Tobago, Uruguay.</p> | 2003-ongoing                                |

## 14. Professional experience

| Date from - Date to  | Location      | Company                                                                                                                                                                                                                      | Position                                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April 2025 - ongoing | Vietnam       | GIZ<br><br>Through<br>GFA<br><br>Contact: Kian Mondial<br><a href="mailto:Kian.Mondial@gfa-group.de">Kian.Mondial@gfa-group.de</a>                                                                                           | KE – International AI and Digitalization Expert | <u>Work in the assignment “Assessment of the Potential of Artificial Intelligence and Digital Applications to Advance Energy Transition in Vietnam's Power Sector”</u><br>Roles and Tasks description: <ul style="list-style-type: none"> <li>• Research international best practices on AI and digitalization in energy transitions, with application to Vietnam's power sector.</li> <li>• Conduct stakeholder consultations and assess AI deployment levels, opportunities, and barriers.</li> <li>• Analyze Vietnam's policy and regulatory frameworks, identifying gaps and proposing preliminary alignment measures with global standards.</li> <li>• Evaluate feasibility and impacts of key AI solutions for grid management, energy efficiency, and renewable integration.</li> <li>• Develop a phased roadmap for AI adoption in Vietnam's power system.</li> </ul> |
| March 2025 - ongoing | African Union | Technical Assistance on Continental Energy Programme in Africa (CEPA)<br><br>Through<br>Stantec sa/nv<br><br>Contact: Alexandros Grivas,<br><a href="mailto:Alexandros.Grivas@stantec.com">Alexandros.Grivas@stantec.com</a> | NKE1 - Hydrogen Expert                          | <u>Work in the CEPA Cross-cutting (“horizontal”) and institutional support activity “Bridging hydrogen and bioenergy for sustainable drop-in fuels and chemicals”</u><br>Roles and Tasks description: <ul style="list-style-type: none"> <li>• Manage a 12-month initiative integrating hydrogen and bioenergy strategies to support scalable PtX fuel production across Africa.</li> <li>• Develop policy alignment guidelines which include sustainability criteria, certification, and land-use under international standards.</li> <li>• Coordinate consultations with public, private, and financial actors to identify investment pathways and institutional gaps.</li> <li>• Deliver policy briefs and financing tools to AU stakeholders, promoting uptake of green fuels and chemicals.</li> </ul>                                                                   |
| March 2025 - ongoing | African Union | Technical Assistance on Continental Energy Programme in Africa (CEPA)<br><br>Through<br>Stantec sa/nv<br><br>Contact: Alexandros Grivas,<br><a href="mailto:Alexandros.Grivas@stantec.com">Alexandros.Grivas@stantec.com</a> | NKE6 - Energy policy expert for Islands         | <u>Work in the CEPA Cross-cutting (“horizontal”) and institutional support activity “Integrating African island states into continental energy frameworks”</u><br>Roles and Tasks description: <ul style="list-style-type: none"> <li>• Lead the design and implementation of a 12-month programme aligning island states with AfSEM, CMP, and AfEES through tailored energy policy roadmaps.</li> <li>• Conduct contextual assessments and stakeholder mapping to define low-cost, high-impact interventions for clean energy access.</li> <li>• Develop strategic planning tools and regulatory guidance to support off-grid, mini-grid, and efficiency-focused solutions.</li> </ul>                                                                                                                                                                                       |

## Dr. George Kyriakarakos CV

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|                                                  |                  |                                                                                                                                                                                     |                                           | <ul style="list-style-type: none"> <li>Facilitate stakeholder engagement and produce a Roadmap for each Island State, including a financing brief for localized energy initiatives.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| June 2024 – ongoing                              | Belgium / Africa | <p>EU Global TAF on Sustainable Energy</p> <p>Through Stantec sa/nv</p> <p>Contact: Magda Popescu, <a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a></p>     | NKE3 - Expert in green/renewable hydrogen | <p><u>Work in the EU Global TAF on Sustainable Energy project “General Support to INTPA F1 on Renewable Hydrogen (RH2)”</u></p> <p>Roles and Tasks description:</p> <p>Provide direct assistance to DG INTPA in the field of RH2 for the following interlinked areas:</p> <ul style="list-style-type: none"> <li>Policies, standards and regulations</li> <li>Building business opportunities:</li> <li>Support to pilot projects and investments: Support will be provided to partner countries at the national, regional and continental levels.</li> <li>Green Shipping Corridors development from the energy perspective</li> </ul>                                                                                                                                                                                                |
| April 2018 – March 2020 and April 2024 - ongoing | Greece           | <p>International Hellenic University</p> <p>Contact: Maria Droungelidou, <a href="mailto:m.droungelidou@ihu.edu.gr">m.droungelidou@ihu.edu.gr</a></p>                               | Adjunct Assistant Professor               | <p>Teaching the course "Management and Design of Renewable Energy &amp; Sustainability Systems" under the MSc in Energy Law, Business, Regulation and Policy and involved in research. Supervisor and member of three-member committees for the evaluation of MSc theses.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| September 2022 – ongoing (part-time)             | Greece           | <p>farmB (A spin-off company of the Centre for Research and Technology Hellas)</p> <p>Contact: Dionysis Bochtis, <a href="mailto:d.bochtis@farm-b.com">d.bochtis@farm-b.com</a></p> | Senior Research Associate                 | <p><u>Work in the Horizon Europe projects:</u></p> <p><u>1. SPADE - Multi-purpose Physical-cyber Agri-forest Drones Ecosystem for governance and environmental observation</u></p> <p><u>2. VALPRO Path - New Value landscapes for plant protein Pathways</u></p> <p><u>3. Green BioReFarmeries - Small-scale Circular Green Biorefineries for increasing farmer sustainability and competitiveness and building resilient rural areas</u></p> <p><u>4. AQUASOL - Advanced Quality Renewable Energy-Powered Solutions For Water Desalination In Agriculture And Wastewater Recycling</u></p> <p>Roles and Tasks description:</p> <ul style="list-style-type: none"> <li>Support in the strategic planning of the activities.</li> <li>Support in the development of future research and technological development pathways.</li> </ul> |

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| January 2024 – June 2025      | African Union    | <p>AfDB</p> <p>through<br/>Stantec sa/nv</p> <p>Contact: Alexandros Grivas,<br/><a href="mailto:Alexandros.Grivas@stantec.com">Alexandros.Grivas@stantec.com</a></p>                       | KE2 - Renewable fuels and energy carriers, agricultural sector and clean cooking expert | <p><u>Work in the project “Preparation of the Africa Energy transition program for the Africa Energy Commission (AFREC)”</u></p> <p>Roles and task description:</p> <ul style="list-style-type: none"> <li>• Stocktaking and state-of-the-art investigation.</li> <li>• African Energy Transition Strategy and Action Plan development.</li> <li>• Responsible for the sectors of renewable synthetic fuels, agriculture and clean cooking sectors of the Action Plan.</li> <li>• Development of guidelines for the short-term activities of the Action Plan.</li> <li>• Development of Deep Decarbonization Pathways for Botswana, Madagascar and The Gambia.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| July 2024 – February 2025     | Belgium / Africa | <p>EU Global TAF on Sustainable Energy</p> <p>Through<br/>Stantec sa/nv</p> <p>Contact: Magda Popescu,<br/><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a></p>    | NKE1 - Energy Expert in Public/Private Sector Infrastructures                           | <p><u>Work in the EU Global TAF on Sustainable Energy project “Support to INTPA F1 for the Private Sector Engagement”</u></p> <p>Roles and Tasks description:</p> <p>Provide direct assistance to DG INTPA to bring together information and expertise that will allow INTPA to:</p> <ul style="list-style-type: none"> <li>• Understand ongoing activities in energy projects like Global Gateway (GG) and AEGL.</li> <li>• Stay informed on EU private sector requirements to engage with the Global Gateway Strategy.</li> <li>• Recognize the focus and ambitions of the EU private sector in partner countries for GG projects.</li> <li>• Engage with the EU private sector to align with the EU's comprehensive offer (political dialogue, technical assistance, financial instruments) in support of GG commitments.</li> <li>• Assist INTPA in GG roadshows, Business Advisory Group activities, and meetings with private companies, particularly regarding involvement in energy or Green tech projects.</li> <li>• Collaborate with the EU private sector to identify emerging opportunities from the GG Strategy and related projects.</li> </ul> |
| November 2023 – December 2024 | Belgium          | <p>European Commission</p> <p>through<br/>Stantec sa/nv</p> <p>Contact: Alba Merillas Dochao,<br/><a href="mailto:Alba.MerillasDochao@stantec.com">Alba.MerillasDochao@stantec.com</a></p> | SNKE on International Energy Cooperation                                                | <p><u>Work in the project “EU leading the global energy transition”</u></p> <p>Roles and task description:</p> <p>Develop an e-learning course related to International engagement and energy security, covering the following issues among others:</p> <ul style="list-style-type: none"> <li>• EU International Cooperation Benefits: Enhanced cooperation's advantages through EU's bilateral and multilateral schemes.</li> <li>• EU Agreements and Partnerships: Main EU-backed agreements, partnerships, and involved international organizations.</li> <li>• Global Gateway Strategy Focus: Key Climate and Energy areas in the EU's Global Gateway strategy.</li> <li>• Economy Diversification Through Energy Dialogue: Transitioning to a diverse economy via energy stakeholder</li> </ul>                                                                                                                                                                                                                                                                                                                                                          |

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|                                |                  |                                                                                                                                                                                                                                 |                                                      | <p>dialogue and investments in energy efficiency and renewables, e.g., ELENA programme.</p> <ul style="list-style-type: none"> <li>Soft Infrastructure Challenges in Energy Sector: Challenges in institutional and regulatory reforms in the energy sector of partner countries, including EU support status.</li> </ul>                                                                                                                                                                                                                                                                    |
| December 2022 – December 2024  | Greece           | <p>DG for Regional and Urban Policy, EC</p> <p>through<br/>VVA Brussels Sprl / Ernst &amp; Young Belgium</p> <p>Contact:<br/>Olha.Koshchiyenko<br/><a href="mailto:Olha.Koshchiyenko@bey.com">Olha.Koshchiyenko@bey.com</a></p> | NKE Greece country expert                            | <p><u>Work in the DG REGIO project "Ex post evaluation of Cohesion policy programmes 2014-2020 financed by the ERDF and the Cohesion Fund - Work package 8: Energy and Transport Network Infrastructures"</u></p> <p>Roles and Tasks description:</p> <ul style="list-style-type: none"> <li>Data collection for Greece contributing to (i) the synthesis of evaluations, (ii) the synthesis of the literature review, (iii) preparing the OP fiches, (iv) repairing the major project fiches, (v) producing a country fiche for Greece</li> </ul>                                           |
| January 2024 – December 2024   | Uganda           | <p>GET.Invest</p> <p>through<br/>GFA</p> <p>Contact: Felice Furiani,<br/><a href="mailto:Felice.Furiani@gfa-group.de">Felice.Furiani@gfa-group.de</a></p>                                                                       | Independent expert                                   | <p><u>Work in the project "Project Documentation Development (PDD) for Yamna-H2 Agro, Uganda"</u></p> <p>Roles and tasks description:</p> <ul style="list-style-type: none"> <li>Development of a market analysis study for nitrogen fertilizers in East Africa</li> <li>Investigation of the processes for the production of green ammonia</li> <li>Investigation of the processes for the production of various nitrogen-based fertilizers using green ammonia</li> <li>Evaluation and ranking of N-type fertilizer types.</li> </ul>                                                      |
| September 2023 – December 2024 | South Africa     | <p>GIZ</p> <p>Through<br/>GFA</p> <p>Contact: Lea Miram,<br/><a href="mailto:Lea.Miram@gfa-group.de">Lea.Miram@gfa-group.de</a></p>                                                                                             | Team leader for the Methanol Study                   | <p><u>Work in the "H2/ PtX-Market Opportunities for South Africa: Analyses of Lighthouse-Projects and Environmental-Social Impact Assessment project" for the "Development of a techno-economic and financial Pre-feasibility study for the selected lighthouse technology methanol"</u></p> <p>Roles and task description:</p> <ul style="list-style-type: none"> <li>Renewable methanol production investigation</li> <li>Sustainable carbon sources identification</li> <li>Development of a techno-economic pre-feasibility study for a green methanol plant in South Africa.</li> </ul> |
| January 2023 – May 2024        | Belgium / Africa | <p>EU Global TAF on Sustainable Energy</p> <p>through<br/>GIZ</p> <p>Contact:<br/>Eugenia Onesti,<br/><a href="mailto:eugenia.onesti@giz.de">eugenia.onesti@giz.de</a></p>                                                      | NKE2 - Energy Efficiency cross cutting sector expert | <p><u>Work in the EU Global TAF on Sustainable Energy project "African Union Energy Efficiency Strategy- (AfEES)"</u></p> <p>Roles and Tasks description:</p> <ul style="list-style-type: none"> <li>Identification of policy, regulatory, investing and financing issues for energy efficiency</li> <li>Development of sectoral EE target quantification scenarios</li> <li>Consultation and formulation of inputs to the AfEES.</li> </ul>                                                                                                                                                 |

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|                                           |                  |                                                                                                                                                                                                                     |                                                                              | <ul style="list-style-type: none"> <li>Collection of data and data analysis from RECs and Regional Centres for RES.</li> <li>Development of the continental Energy Efficiency Strategy with implementation roadmap.</li> <li>Responsible for the sectors of electricity, minimum energy performance standards, clean cooking and agriculture in the Action Plan.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| March 2023 – August 2023                  | Namibia          | <p>GIZ</p> <p>Through GFA</p> <p>Contact: Lea Miram, <a href="mailto:Lea.Miram@gfa-group.de">Lea.Miram@gfa-group.de</a></p>                                                                                         | Team leader                                                                  | <p><u>Scoping Study on Biomass-to-Liquid and Potential Sustainable Aviation Fuel (SAF) Production in Namibia</u></p> <p>Roles and task description:</p> <ul style="list-style-type: none"> <li>Power-to-X description highlighting the role of biogenic residues</li> <li>Description of Technology pathways for SAF</li> <li>Evaluation of bush-biomass as feedstock for PtL/PBtL</li> <li>Development of case studies for PtL/PBtL applications</li> <li>Investigation of techno-economic feasibility for using bush-biomass for PtL/PBtL applications</li> <li>Roadmap for establishing a PtL/PBtL-SAF pilot</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |
| October 2020 – September 2022 (part-time) | Greece           | <p>Centre for Research and Technology Hellas / Institution of for Bio-Economy and Agri-Technology (IBO)</p> <p>Contact: Athanasios Balafoutis, <a href="mailto:a.balafoutis@certh.gr">a.balafoutis@certh.gr</a></p> | Senior Research Associate                                                    | <p><u>Work in the Horizon2020 project “Strategies and technologies to achieve a European Fossil-energy-free agriculture – AgroFossilFree”</u></p> <p>Roles and Tasks description</p> <ul style="list-style-type: none"> <li>Development of policy guidelines for the defossilization of EU Agriculture in order to accomplish the goals set by the EU Green Deal in line with international sustainability pursuits (e.g. Paris Agreement).</li> <li>Design and development of an Artificial Intelligence decision support tool to facilitate technologies ranking for defossilization of agriculture.</li> <li>Investigation of green finance options for the implementation of defossilization investments</li> </ul>                                                                                                                                                                                                                                                            |
| January 2022 – December 2023              | Belgium / Africa | <p>EU Global TAF on Sustainable Energy</p> <p>through Stantec sa/nv</p> <p>Contact: Magda Popescu, <a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a></p>                                     | NKE2 - Energy in rural context, social infrastructure, digitalisation expert | <p><u>Work in the EU Global TAF on Sustainable Energy project “Support to identification of programmes/projects for clean cooking and electrification of social infrastructures under the Annual Action Plan 2019 (AAP 2019) “Sustainable Socioeconomic Development Through Clean and Efficient Energy Solutions” and preparation of Desk report and an Action Document (AD) under the AAP 2022 of Côte d'Ivoire for biomass efficient use.”</u></p> <p>Roles and Tasks description:</p> <p>Ad-hoc support to DG INTPA including detailed desk review and analysis supporting the implementation of the Action Document “Energy efficiency in action” focusing on the electrification of social infrastructure including schools and clinics. Investigation of the energy systems, factors that affect the sustainability of these systems including maintenance and remote monitoring as well as high energy efficiency appliances and devices used in social infrastructure.</p> |

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|-------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               |                                           |                                                                                                                                                                                                      |                                                                                  | Investigation of synergies with productive uses under the energy-water-food nexus in remote areas and island communities.<br>Investigation of synergies with clean cooking.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| November 2022 – December 2022 | Belgium / Latin America and the Caribbean | EU TAF - SE4ALL<br>Central and West Africa<br><br>through<br>Stantec sa/nv<br><br>Contact: Magda Popescu,<br><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a>                | NKE1 – Sustainable energy expert                                                 | <u>Work in the EU TAF - SE4ALL project “European private sector engagement in the renewable hydrogen development in Latin America and the Caribbean”</u><br>Roles and Tasks description:<br><ul style="list-style-type: none"> <li>• EU actors mapping - Baseline setting</li> <li>• Mapping of EU private sector stakeholders</li> <li>• Gaps Analysis and recommendations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| March 2022 – October 2022     | Belgium / Africa                          | EU TAF - SE4ALL<br>Central and West Africa<br><br>through<br>Stantec sa/nv<br><br>Contact: Magda Popescu,<br><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a>                | NKE2 – Hydrogen/ biomass expert for mapping possible hydrogen projects in Africa | <u>Work in the EU TAF - SE4ALL project “Mapping exercise - industry interests and country opportunities in Renewable Hydrogen (RH<sub>2</sub>)”</u><br>Roles and Tasks description:<br><ul style="list-style-type: none"> <li>• Perform a state-of-the-art analysis on the current status on producing hydrogen from biogas/biomass.</li> <li>• Evaluate the identified technologies in terms of: a) Maturity (TRL level), b) advantages and disadvantages, c) cost of hydrogen production, d) investigation of companies offering such solutions, e) interrelations with the energy-water-food nexus, f) scope of application (e.g., centralized, decentralized etc.) g) applicability in the African context.</li> <li>• Rank the technologies for application in short-term and also as possible bridge technologies (e.g., biomethane and renewable natural gas) and choose the most prominent technologies for application.</li> <li>• Evaluate different African countries for the chosen technologies deployment and outline possible projects (coastal, landlocked, island context).</li> </ul> |
| August 2019 – August 2022     | Greece                                    | Centre for Research and Technology Hellas / Institution of for Bio-Economy and Agri-Technology (IBO)<br><br>Contact: Dionysis Bochtis,<br><a href="mailto:d.bochtis@certh.gr">d.bochtis@certh.gr</a> | Senior Research Associate                                                        | <ul style="list-style-type: none"> <li>• Investigation of new business models for rural electrification in the developing world.</li> <li>• Agriculture related loads electrification, energy efficiency and decentralized agri-production.</li> <li>• Productive use appliances/devices in rural electrification (water pumping, water desalination, seeds milling, refrigeration, plant oil extraction, hydrogen production etc.)</li> <li>• Investigation of clean cooking approaches (from sustainable biomass use to e-cooking)</li> <li>• Climate change mitigation interventions in agriculture</li> <li>• Focus on island and coastal communities needs under the water energy food nexus.</li> <li>• Artificial Intelligence applications for Robotics in agriculture under the energy-water-food nexus.</li> </ul>                                                                                                                                                                                                                                                                            |

## Dr. George Kyriakarakos CV

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|                             |                                               |                                                                                                                                                                                    |                                                                                                                                                             | <ul style="list-style-type: none"> <li>Data mining and development of ICT systems in the agri-energy sector.</li> <li>Renewable fuels production from biomass.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| June 2022                   | Turkey / Greece                               | World Bank<br>through<br>Exergia S.A.<br><br>Contact: Niki Komioti<br><a href="mailto:n.komioti@exergia.gr">n.komioti@exergia.gr</a>                                               | Expert on Waste Heat Use                                                                                                                                    | <u>Work in the World Bank project “Assessment for waste heat potential in Turkey”</u><br>Roles and Tasks description: <ul style="list-style-type: none"> <li>Literature review of barriers faced in waste heat utilization</li> <li>Investigation of waste heat use barriers in Turkey</li> <li>Investigation of business models for unlocking the use of the waste heat potential in Turkey</li> <li>Compilation of recommendations to overcome the barriers identified for the use of waste heat.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           |
| August 2021 – March 2022    | Uganda                                        | EU Global TAF on Sustainable Energy<br><br>through<br>Stantec sa/nv<br><br>Contact: Magda Popescu,<br><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a>     | NKE2 - Off-grid electrification and productive uses expert                                                                                                  | <u>Work in the EU Global TAF on Sustainable Energy project “Analysis of the feasibility studies for mini-grid bundled tender in Uganda and impacts of technical design parameters”</u><br>Roles and Tasks description: <ul style="list-style-type: none"> <li>Review of the recommendations on the promotion of productive uses of electricity in the framework of the tender in Uganda;</li> <li>Literature review of experiences in the promotion of productive uses of electricity internationally, with a specific focus on Sub-Saharan Africa, including the concept of “household and business productive energy appliances fund”;</li> <li>Recommendations on how to scale up the promotion of productive uses of electricity in EU interventions in Sub-Saharan Africa, developing the concept of “household and business productive energy appliances fund”.</li> </ul>                                         |
| August 2019 – December 2021 | African Union (missions to African countries) | EU TAF - SE4ALL Central and West Africa<br><br>through<br>Stantec sa/nv<br><br>Contact: Magda Popescu,<br><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a> | Non-Key Expert 4 - Energy Data Quality Assurance Expert<br><br>This contract involves activities in different autonomous Lots<br><br>Leader of Lot 8.2 Team | <u>Work in the EU TAF - SE4ALL project “Support to African Union Commission (AUC) for the implementation, coordination and monitoring of the Electricity Harmonization Regulatory Strategy and Action Plan”</u><br>This contract involves activities in different autonomous Lots<br><br><u>Lot 1: Monitoring &amp; Coordination Framework – Development of a digital online information platform</u><br>August 2019 –December 2021<br>Roles and Tasks description: <ul style="list-style-type: none"> <li>Development of a continental ICT monitoring system of the process towards harmonization of the electricity markets in Africa with main role the development of the respective indicators and design of the data flow process from the regional and continental stakeholders to AUC.</li> </ul> <u>Lot 4: Energy Efficiency Quality Assurance Frameworks for Off-grid Appliances</u><br>August 2019 – May 2020 |

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|  |  |  |  | <p><i>Roles and Tasks description</i></p> <ul style="list-style-type: none"> <li>• Investigation of current status of standards and quality assurance frameworks for off-grid appliances.</li> <li>• Development of a state-of-the-art report identifying technology, environmental sustainability and circular economy insights</li> <li>• Development of the Guidelines document for Quality Assurance Frameworks for Off-grid appliances and roadmap.</li> <li>• Focus on lighting, refrigeration and clean cooking.</li> </ul> <p><u>Lot 8.2: Strategy, Roadmap and Guidelines for Smart Distribution Grids- Digital complementarity of Continental Mater Plan</u><br/> <i>August 2020 – October 2021</i><br/> <i>Roles and Tasks description</i></p> <ul style="list-style-type: none"> <li>• Team Leader of this Lot.</li> <li>• Development of a continental strategy towards smart distribution grids towards increasing the share of distributed renewable energy technologies deployment increasing the climate change mitigation investments.</li> <li>• Development of a roadmap acknowledging the different realities concerning the distribution grids among the AU Member States and different geographical locales (urban vs rural vs islands).</li> <li>• Identification of international green finance opportunities for the implementation of smart distribution grids projects.</li> <li>• Development of guidelines to facilitate the implementation of the short-term activities of the roadmap.</li> </ul> <p><u>Lot 9.2: Establishing a Market for Energy Efficient Appliances in Africa - AfCFTA and AU-EU Initiative of Harmonization of the Electricity market in Africa</u><br/> <i>August 2020 –November 2021</i><br/> <i>Roles and Tasks description</i></p> <ul style="list-style-type: none"> <li>• Development of a Strategy and Roadmap that will guide decision makers of the Africant Common Free Trade Area (AfCFTA) in terms of how the rules of origin and tariff regimes should be employed to allow establishment and participation of the efficient energy appliances within the African Trade and how local industrialization and imports of such appliances could be promoted in the Free Trade regime promoting energy efficiency, sustainability and environmental impact minimization.</li> <li>• Develop Guidelines for Rules of Origin and Tariff Regimes for efficient energy appliances/equipment market and their application within the AfCFTA.</li> <li>• Focus on off-grid appliances.</li> </ul> <p><u>Lot 9.5: Strategic Planning, Action Plan and Guidelines for the African Single Electricity Market (AfSEM)</u><br/> <i>February 2021 –December 2021</i></p> |
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## Dr. George Kyriakarakos CV

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|                            |        |                                                                                                                                |                           | <ul style="list-style-type: none"> <li>• Undertake extensive review of the existing regional/national African electricity sector policies and Plans along with relevant national and international commitments (e.g. NDCs under Paris Agreement)</li> <li>• Update/revise the Strategy and Action Plans for a Harmonised Electricity Market in Africa (adopted by the Heads of State and Government in June 2017) along with the roadmap included in the Strategy document</li> <li>• Carry out an assessment and develop an institutional, policy, legal and regulatory frameworks for the establishment and operationalisation of the AfSEM, along with a roadmap for their implementation in line with the sustainable development targets of the African Union.</li> <li>• Focus on the off-grid sector</li> </ul> <p><u>Lot 10.2: Support to AUC to effectively address the impacts of COVID-19 in the African electricity sector and the post COVID-19 recovery.</u></p> <p><i>August 2020 – October 2021</i></p> <p>Roles and Tasks description</p> <ul style="list-style-type: none"> <li>• High-level review of the operation of the electricity sector in Africa amid COVID-19 pandemics.</li> <li>• Development of African Union Post-COVID-19 Recovery Strategy for the African Energy Sector along with its implementation action plan and M&amp;E framework.</li> <li>• Investigation of financing modalities for the proposed sustainable energy projects.</li> <li>• Guidelines document / recommendation for a solidarity mechanism at the continental level by AUC.</li> </ul> |
| 2010 – ongoing (Part-time) | Greece | <p>Agricultural University Athens</p> <p>Contact: Prof. George Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p> | Senior Research Associate | <ul style="list-style-type: none"> <li>• Microgrid research</li> <li>• Polygeneration microgrids research including the production of electricity, heating, cooling, hydrogen as fuel for transportation and drinking water through desalination.</li> <li>• Artificial Intelligence management and control systems for polygeneration microgrids</li> <li>• Design and implementation of the experimental microgrid at the Agricultural University which includes a hydrogen subsystem (fuel cell, PEM electrolyzer, metal hydride tanks) and a desalination system for the water production.</li> <li>• Energy-water-food nexus under islands and coastal communities.</li> <li>• Hydrogen production from biomass.</li> <li>• 8 peer-reviewed research papers in high impact factor journals which are related to hydrogen.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| October 2021 – December 2021                               | Greece                                       | EC Research Executive Agency<br><br>Contact: <a href="mailto:rea-experts@ec.europa.eu">rea-experts@ec.europa.eu</a>                                                                                                              | Evaluation Expert                                                                        | <u>Proposal evaluator for call HORIZON-MSCA-2021-PF-01</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| March 2019 – December 2019<br><br>June 2020 –December 2021 | Belgium / Greece (Missions to ACP countries) | EU TAF - SE4ALL Central and West Africa<br><br>Phase 1 through HCL Consultants Ltd.<br><br>Phase 2 through Stantec sa/nv<br><br>Contact: Magda Popescu, <a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a> | Non Key Expert 5 - Energy in rural context, social infrastructure, digitalisation expert | <u>Work in the EU TAF - SE4ALL project “Preparation of a Desk report and an Action Document (AD) under the Annual Action Plan 2019 (AAP 2019) ‘Energy efficiency in action’.</u><br>Roles and Tasks description: Detailed desk review and analysis supporting the preparation the Action Document “Energy efficiency in action” focusing on the electrification of social infrastructure including schools and clinics. Investigation of the energy systems, factors that affect the sustainability of these systems including maintenance and remote monitoring as well as high energy efficiency appliances and devices used in social infrastructure. Investigation of synergies with productive uses under the energy-water-food nexus in different locales (rural, coastal, islands). Investigation of clean cooking synergies of various technologies (sustainable biomass, biogas, e-cooking, etc.). |
| October 2019 – October 2021                                | Luxembourg / Greece                          | European Investment Bank Environment, Climate and Social Office (ECSO) / Lot 2<br><br>through Atkins<br><br>Contact: James Dunham, <a href="mailto:James.Dunham@atkinsglobal.com">James.Dunham@atkinsglobal.com</a>              | Climate change impact measurement key expert                                             | <u>Work in the EIB ECSO Framework Agreement – LOT 2 Climate Action - Evaluation of ICT contribution to climate change mitigation and adaptation</u><br>Roles and Tasks description: <ul style="list-style-type: none"><li>• provide a review of the EIB’s eligibility criteria for financing under the EIB’s Climate Action mandate,</li><li>• assess the direct climate effects of EIB investment project types;</li><li>• assess the overall climate action impact of digital infrastructure on a selection of ICT using sectors; and,</li><li>• develop a methodology and corresponding software tool for estimating the overall climate change mitigation impact of major Digital Infrastructure investment project types, including the enabling effect in other sectors like agriculture, industry, smart cities and transport.</li></ul>                                                             |
| November 2020 – October 2021                               | UK / Greece                                  | European Bank for Reconstruction and Development<br><br>through Atkins<br><br>Contact: George Davies, <a href="mailto:George.Davies@atkinsglobal.com">George.Davies@atkinsglobal.com</a>                                         | Key Expert 4: Renewable Energy Engineer                                                  | <u>Work in the Cross regional project: “Viability of small-scale desalination solutions for small coastal communities”</u><br>Roles and Tasks description <ul style="list-style-type: none"><li>• Investigate the technological, environmental and economic advantages and disadvantages of small-scale desalination solutions compared with conventional/larger-scale desalination facilities in water-stressed, coastal communities and islands overall;</li><li>• Identify the typical power requirements of small desalination units scaled in terms of water produced (m3/day), input salinity and by technology. Confirm the (alternate/complimentary) renewable</li></ul>                                                                                                                                                                                                                            |

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|                              |            |                                                                                                                                                                                     |                                                          | <p>energy options typically available, in use or potentially usable and the conditions necessary to facilitate their deployment.</p> <ul style="list-style-type: none"> <li>• Provide case studies real/worked that demonstrate financially how renewable energy options can be augmented.</li> <li>• Develop software models and deploy optimizations based on simulations using the TRNSYS software platform.</li> <li>• Reveal the policy framework and environmental / climate action legislation required for the construction and operation of this type of small-scale units.</li> <li>• Assess the potential effectiveness of small-scale desalination water supply options in Greece in line with climate action and environmental sustainability goals.</li> <li>• Assess and recommend business models for efficiently and effectively financing and operating multiple, decentralised assets.</li> </ul>                  |
| October 2020 – December 2020 | The Gambia | <p>EU Global TAF on Sustainable Energy</p> <p>through Stantec sa/nv</p> <p>Contact: Magda Popescu,<br/><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a></p> | Non-Key Expert 1 - Team Leader - Senior Technical Expert | <p><u>Work in the EU Global TAF on Sustainable Energy project “Development of ICT infrastructure- Identification Study - The Gambia”</u></p> <p>Roles and Tasks description</p> <ul style="list-style-type: none"> <li>• Contribute to the development of ICT infrastructure in the Gambia by integrating the digital-energy nexus dimension</li> <li>• Stocktaking of the state of digital connectivity (broadband) and the country's infrastructure of digital connectivity and energy access in the country</li> <li>• Reviewing the different technical solutions for GAMTEL to develop its telecommunication infrastructures and improving broadband connectivity all over the country in terms of technology, cost benefit analysis, financial sustainability</li> <li>• Assessing the opportunities to develop the digital-energy aspect in the GAMTEL in the future telecommunication infrastructures development.</li> </ul> |
| October 2020 – December 2020 | Greece     | <p>EC Research Executive Agency</p> <p>Contact: <a href="mailto:rea-experts@ec.europa.eu">rea-experts@ec.europa.eu</a></p>                                                          | Evaluation Expert                                        | <u>Proposal evaluator for call H2020-MSCA-IF-2020</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| October 2019 – December 2019 | Greece     | <p>EC Research Executive Agency</p> <p>Contact: <a href="mailto:rea-experts@ec.europa.eu">rea-experts@ec.europa.eu</a></p>                                                          | Evaluation Expert                                        | <u>Proposal evaluator for call H2020-MSCA-IF-2019</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| May 2019 – December 2019 | Rwanda / Greece       | <p>EU TAF - SE4ALL Central and West Africa</p> <p>through Stantec sa/nv</p> <p>Contact: Magda Popescu,<br/><a href="mailto:Magda.Popescu@stantec.com">Magda.Popescu@stantec.com</a></p>                                 | <p>Non-Key Expert 2 - Technical expert Solar off-grid, mini and smart grids and demand estimation/ net metering/ maintenance/ digitalisation</p> | <p><u>Work in the EU TAF - SE4ALL project “Advanced Pre-Feasibility Study for Electrification and Clean Cooking for Rural Schools in Rwanda”</u></p> <p>Roles and Tasks description: The main objective of the project is to provide stable, affordable and reliable electricity supply to primary and secondary schools as well as clean and efficient cooking facilities to boarding public secondary schools in Rwanda in line with the country's Climate Action policies. The main input is concerned with the collection of relevant information and the design and modelling of the solar PV systems for the rural schools. The analysis was performed using Homer Energy software. Clean cooking and e-cooking solutions were also investigated.</p>                                                                                                |
| May 2018 – July 2019     | Luxembourg / Greece   | <p>EIB Environment, Climate and Social Office (ECISO) / Lot 2</p> <p>through Pescares Italia SRL</p> <p>Contact: Nick Craze,<br/><a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p> | <p>Sectoral Key Expert - Energy</p>                                                                                                              | <p><u>Work in the EIB Climate Strategy Implementation – Action Plan 1 – Gap and market analysis</u></p> <p>Support to the development of the deliverables focusing on technical inputs and critical review of the following deliverables/activities from an Energy sector perspective:</p> <ul style="list-style-type: none"> <li>• Data and Literature Review on methodologies relating to assessing and monitoring climate action and environmental sustainability as well as their implementation.</li> <li>• EIB Interviews</li> <li>• Country Level Engagement in terms of climate action and environmental sustainability projects</li> <li>• “Green” Climate Finance Trends, Barriers and Opportunities</li> <li>• Recommendations on Future Investment Opportunities and Products</li> <li>• Assessment of Concessional Financing Needs</li> </ul> |
| April 2017 – July 2019   | East and South Africa | <p>EU TAF - SE4ALL East and South Africa</p> <p>through HCL Consultants Ltd.</p> <p>Contact: Nick Craze,<br/><a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p>                     | <p>Non Key Expert 2 – Energy Expert</p>                                                                                                          | <p><u>Work in the EU TAF - SE4ALL project “Communication activities for EU Technical Assistance Facility for the “Sustainable Energy for All” Initiative (SE4ALL), East and Southern Africa”</u></p> <p>Role and Tasks description:</p> <ol style="list-style-type: none"> <li>a) in consultation with TAF Key Expert Team and DEVCO C6, select specific topics, assignments and outcomes to showcase in the Newsletter</li> <li>b) extract the data/ key messages of the missions for the newsletter from the technical perspective</li> <li>c) coordinate and collate individual mission outcomes/ impacts to create featured topics from the technical perspective in the Newsletter</li> </ol>                                                                                                                                                         |

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| April 2019 – June 2019   | Greece / Argentina, Brazil, Chile, Colombia, Kenya, Mozambique, Panama, Tanzania, Uganda and Zambia | <p>Project funded by a multinational company based in Greece</p> <p>Through EGLOS Ltd</p> <p>Contact: Dimitris Papastefanakis, <a href="mailto:d.papastefanakis@gmail.com">d.papastefanakis@gmail.com</a></p> | Senior Energy Expert                                           | Preparation of country reports investigating the attractiveness for energy investments in the following countries: Argentina, Brazil, Chile, Colombia, Kenya, Mozambique, Panama, Tanzania, Uganda and Zambia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| February 2018 – May 2019 | Belgium / Greece (Missions to ACP countries)                                                        | <p>EU TAF - SE4ALL Central and West Africa</p> <p>through HCL Consultants Ltd.</p> <p>Contact: Nick Craze, <a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p>             | Non Key Expert 1/ Team Leader - Energy in rural context expert | <p><u>Work in the EU TAF - SE4ALL project “Identification of financially sustainable business models in the energy-digital nexus, focusing on productive use of energy and job creation”</u> Roles and Tasks description: Review of the available technology documentation and information sources on existing energy projects employing innovative digital / ICT solutions (agriculture related productive loads, swarm electrification, desalination, blockchain applications, crowdfunding etc.) , including P2P pilot-projects; Investigation of the applications in different settings like rural, coastal and islands. Assessment of the legal and regulatory framework, as well as of the existing funding opportunities and on-the-ground expertise in partner countries; Identification of priority countries where the business environment proves to be favourable for the deployment of bankable projects in this area; Field missions in countries where the energy-digital nexus could build synergies with the ongoing and upcoming initiatives supported by the EC as well as from EU financing institutions; Identification and formulation of possible business concepts in the energy-digital nexus for the creation of bankable projects in line with the green finance agenda.</p> <p>Work in the development of the “Guidelines for -Minimum Energy Performance Standards (MEPS) Energy Labelling and Eco-Design at the Continental Level” for the benefit of the African Union Commission – responsible for off-grid appliances / devices.</p> <p>The Guidelines document has been adopted by the Heads of State of the African Union.</p> |
| May 2017 – February 2019 | Greece                                                                                              | <p>EU Horizon2020</p> <p>through Agricultural University Athens</p> <p>Contact: Prof. George Papadakis, <a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                                                      | Technical Project Manager / Researcher                         | <p><u>Work in the “Cloud-based Simulation of Desalination Systems Powered by Renewables” funded by Horizon2020</u></p> <p>Roles and tasks description:</p> <p>Development of computational intelligence algorithms for the simultaneous optimization of both the desalination system and renewable energy system components, along with the tuning of the control system aiming at minimizing the water and electricity cost at remote areas. These algorithms were the core of the developed software for design and sizing. Feasibility studies of renewable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                              |                                          |                                                                                                                                                                                          |                                                           | energy systems were performed for a number of case studies. These algorithms will be integrated as a service in a digital market under the Fortissimo H2020 project. The Fortissimo Marketplace provides one-stop, pay-per-use, on-demand access to advanced simulation, modelling and data analytics resources including software, hardware and expertise. The software modelling was based on TRNSYS as well as Homer Energy software platforms.                                                                                                                                                                                                                                                                                                                                          |
| September 2018 – April 2019  | Lesotho / Greece                         | <p>EuropAID contract through HCL Consultants Ltd.</p> <p>Contact: Nick Craze, <a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p>                     | Technical Project Manager                                 | <p><u>Work in the “Support to the Energy Sector in Lesotho” project funded by EuropAID.</u></p> <p>Roles and tasks description:</p> <ul style="list-style-type: none"> <li>• Technical coordination of the experts implementing the project aiming at assisting the country in implementing energy sector reforms achieving SDG 7 and forwarding the energy transition in line with the country’s climate action policies.</li> <li>• Evaluation and improvement of the technical results of the project</li> <li>• Supervision of the coordination and support activities on behalf of the implementing consortium.</li> <li>• Technical support to the experts for the organization and planning of the various activities.</li> <li>• Development of assignment specific ToRs</li> </ul> |
| October 2018 – December 2018 | Greece                                   | <p>EC Research Executive Agency</p> <p>Contact: <a href="mailto:rea-experts@ec.europa.eu">rea-experts@ec.europa.eu</a></p>                                                               | Evaluation Expert                                         | <u>Proposal evaluator for call H2020-MSCA-IF-2018</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| May 2017 – March 2018        | African Union (Mission to Zimbabwe/SADC) | <p>EU TAF - SE4ALL East and South Africa through HCL Consultants Ltd.</p> <p>Contact: Nick Craze, <a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p> | Non Key Expert 2 - Mini-grids/Microgrids Technical Expert | <p><u>Work in the EU TAF - SE4ALL project “Institutional and policy model for microgrids / mini-grids”</u></p> <p>Roles and Tasks description:</p> <p>Work for the development of Guidelines for Institutional and policy model for mini-grids at Continental level and Monitoring Plan including Model Contracts. The work included extensive consultation through workshops with strategic continental, regional and selected national energy stakeholders.</p> <p><b>The Guidelines document has been adopted by the African Union Commission.</b></p>                                                                                                                                                                                                                                   |
| October 2017                 | Belgium                                  | <p>EU TAF - SE4ALL East and South Africa through HCL Consultants Ltd.</p> <p>Contact: Nick Craze, <a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p> | Non Key Expert 1 - Energy Efficiency Expert               | <p><u>Work in the EU TAF - SE4ALL project “Presentation of ES TAF Energy Efficiency in buildings activities at the Stakeholder event: EU-Africa High Level Policy Dialogue on Science, Technology and Innovation”</u></p> <p>Roles and Tasks description:</p> <p>Promotion and dissemination of energy efficiency in building sector results from implemented TAF activities in ES Africa. Present at the EU-Africa High Level Policy Dialogue (HLPD) event the outcomes of the following assignments:</p>                                                                                                                                                                                                                                                                                  |

## Dr. George Kyriakarakos CV

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|                              |                           |                                                                                                                                                                                                |                                                             | <ul style="list-style-type: none"> <li>ES-0061: Preparation of Energy Performance Certification of Larger Buildings in Tanzania</li> <li>ES-0068: Energy Efficiency Quick Win Actions and Specific Electricity Indicators in Zambia</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| October 2017 – December 2017 | Greece                    | EC Research Executive Agency<br><br>Contact: <a href="mailto:rea-experts@ec.europa.eu">rea-experts@ec.europa.eu</a>                                                                            | Evaluation Expert                                           | <u>Proposal evaluator for call H2020-MSCA-IF-2017</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| October 2015- April 2019     | Greece                    | EU TAF - SE4ALL East and South Africa<br><br>through<br>HCL Consultants Ltd.<br><br>Contact: Nick Craze,<br><a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a> | Technical Project Manager of the Short Term Expert Facility | <u>Technical Project Manager / Short-term Expert Facility of the EU 's Technical Assistance Facility (TAF) for the Sustainable Energy for All Initiative (SE4ALL) - Eastern and Southern Africa</u><br>Main responsibilities: <ul style="list-style-type: none"> <li>Setting up a proper filing and recording system for the identification deployment and mobilization of experts;</li> <li>Administrative and Financial Project Management of all missions implemented in the region;</li> <li>Working with DEVCO and Technical Facility Team for the proper implementation of the missions (backstopping, ToRs, etc.)</li> <li>Monitoring of the implementation of all on-going projects</li> <li>Quality control of reports produced by short-term Experts</li> <li>Preparation of energy documentation, data bases – information system development</li> <li>Backstopping technical support to field missions</li> <li>Organizing mission planners</li> </ul> |
| December 2016 – April 2017   | SADC (Mission to Finland) | EU TAF - SE4ALL East and South Africa<br><br>through<br>HCL Consultants Ltd.<br><br>Contact: Nick Craze,<br><a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a> | Non Key Expert 1 – Team Leader – Senior Energy Expert       | <u>Work in the EU TAF - SE4ALL project "Study Tour By SAPP Environmental Sub-Committee To Electricity Power Utilities In Europe".</u><br>Role and Tasks description:<br>Organize and assist a study tour for Southern Africa Power Pool (SAPP) Environmental Sub-Committee (ESC) members to designated European Utilities which are well reputed for implementing sound Environment Management Systems ensuring sustainable electricity production. In detail: <ul style="list-style-type: none"> <li>(i) provide technical assistance to SAPP ESC to focus on capacity building on tools and methodologies related to assessing and monitoring environmental sustainability performance of electricity generation.</li> <li>(ii) perform preparatory work before the study tour with the training areas identified and approved by SAPP and member Utilities</li> <li>(iii) facilitate and accompany the SAPP participants during the study tour.</li> </ul>      |

# Dr. George Kyriakarakos CV

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|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                                |                                                                                                                                                                                                                                                                       |                                                                        | <p>(iv) Investigate climate change mitigation opportunities and also investigation of emissions decrease of current plants in operation.</p> <p>(v) Investigation of financing possibilities for improving the environmental outlook of electricity generation</p> <p>(vi) evaluate the study tour outcomes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| October 2015-<br>December 2016 | African Union<br>(Missions to<br>Ethiopia/African Union<br>Commission,<br>Namibia/SADC, Cabo<br>Verde/ECOWAS,<br>Egypt/COMESA) | <p>EU TAF - SE4ALL East<br/>and South Africa</p> <p>through<br/>HCL Consultants Ltd.</p> <p>Contact: Nick Craze,<br/><a href="mailto:nick.craze@hcl-consultants.com">nick.craze@hcl-consultants.com</a></p>                                                           | Non Key Expert 4 –<br>Renewable Energy and<br>Energy Efficiency expert | <p><u>Work in the EU TAF - SE4ALL project "Legal Framework Assessment Support to AUC in the Development of a Legal Harmonised Continental Regulatory Framework for the Energy Sector in Africa".</u></p> <p>Role and Tasks description:</p> <p>i) Energy Information Data Base: Statistics, studies, reports, existing laws and regulations, stakeholders, Donors, Financial Institutions;</p> <p>ii) Benchmark on RES and Energy Efficiency regional/national activities, best international practices;</p> <p>iii) Support to stakeholders, Donors, Financial Institutions dialog;</p> <p>iv) Mapping energy Market gaps, particularities, convergences.</p> <p>v) Regional Missions to SADC/COMESA</p> <p>vi) organization of participatory consultation and validation workshops attended by continental organizations (AUC, AFUR, APUA, NEPAD-NPCA, UNECA, AFREC), regional organizations (RECs, Power Pools, Regional Regulators) and Regional Renewable Energy and Energy Efficiency Centres (RCREEE, ECREEE and the newly formed SACREEE)</p> <p>vii) Development of the Strategy and Action Plan for a Harmonized Continental Regulatory Framework for the Electricity Sector in Africa in line with the Agenda 2063 energy and environmental sustainability goals.</p> <p><b>The Strategy and Action Plan have been adopted by the Energy Ministers of the African Union and the Heads of State of the African Union.</b></p> |
| 8/2013 - 9/2015                | Greece, Cyprus                                                                                                                 | <p>EU Cross-border<br/>Cooperation Programme<br/>Greece – Cyprus 2007-<br/>2013</p> <p>through<br/>Centre of Renewable<br/>Energy Sources and<br/>Saving (CRES)</p> <p>Contact: Katerina<br/>Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p> | Technical consultant /<br>Researcher                                   | <p><u>Strategic Project: "ENERGEIN - Sustainable Energy Development in Regional, Intraregional and Cross-border level" funded by Cross-border Cooperation Programme Greece – Cyprus 2007-2013</u></p> <p>Design and sizing of autonomous microgrids based on photovoltaics for covering the needs in electricity for 5 buildings in the city of Rhodes, in the island of Rhodes, Greece and preparation of the feasibility studies. Design of lighting systems based on renewables for these 5 buildings. Participation in the preparation of pre-feasibility and feasibility studies of Renewable Energy and Energy Efficiency projects and the preparation of strategic business plans in the field of energy for the Greek areas of the project in order to decrease the overall CO2 emissions. Moreover, he provided technical assistance for the pilot projects to be installed in the Regions of North Aegean, South Aegean and Crete, Greece. Investigated of the socio-economic impact of the above mentioned microgrids.</p>                                                                                                                                                                                                                                                                                                                                                                                                   |

# Dr. George Kyriakarakos CV

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|                   |                                                     |                                                                                                                                                                                                                                                          |                                   | Contribution to the management of the activities, as well as the communication activities (e.g. workshop, website development).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 10/2013 - 09/2015 | Greece                                              | <p>Greek General Secretariat of Research and Technology<br/>"Cooperation 2011"</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p> | Technical consultant / Researcher | <p>Project "Occupancy-Aware Optimisation of Energy Efficient Enterprise Buildings" funded by the «Cooperation 2011» Programme of the Greek General Secretariat of Research and Technology</p> <p>Participation in the development of an ICT intelligent building energy management system for tertiary sector buildings, which gave focus on the occupancy awareness for the improvement of the energy efficiency in these buildings.</p> <p>Contribution to the management of the activities.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 09/2014- 09/2015  | Greece                                              | <p>EU Cross-border Cooperation Programme Greece – Albania 2007-2013</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p>            | Technical consultant / Researcher | <p><u>Strategic Project: "GALET – Greece Albania Energy Tourism" funded by Cross-border Cooperation Programme Greece – Albania 2007-2013</u></p> <p>Design of the energy efficiency approaches to be implemented in the buildings that house the Region of Epirus headquarters in Ioannina, Greece and the Region of Ionian Islands headquarters in Corfu, Greece including participation in the preparation of the feasibility studies. These interventions were mainly concerned with the implementation of advanced building energy management systems, as well as the utilization of heat pumps aiming at minimizing the carbon footprint of the building in line with the climate and environmental sustainability pursuits of the regional authority. Investigation of the socio-economic impact of the above-mentioned interventions. Finally, he took part in the planning and implementation of the communication activities of this project.</p> |
| 02/2012 - 09/2015 | Greece<br>(Missions to Croatia, Italy and Slovenia) | <p>EU CBC IPA Adriatic Programme 2007-2013</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p>                                     | Technical consultant / Researcher | <p><u>Strategic Project: "ALTERENERGY" funded by CBC IPA Adriatic Programme 2007-2013</u></p> <p>Preparation of pre-feasibility studies of Renewable Energy and Energy Efficiency projects. He was in charge of energy data collection and analysis for the coastal Municipal Community of Igoumenitsa, Greece. Based on this data he developed the energy balances of the community, design of climate change mitigation options and finally the Sustainable Energy Action Plan. Preparation of training modules for capacity building on renewables, energy efficiency, environmental sustainability and climate change mitigation.</p> <p>Provision of technical assistance for the pilot project to be deployed in Igoumenitsa, Greece, which consisted of a geothermal heat-pump for space heating and cooling in order to minimize the carbon footprint of the building.</p>                                                                         |

# Dr. George Kyriakarakos CV

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|                   |                                |                                                                                                                                                                                                                                                                                   |                                   | Contribution to the communication activities (e.g. workshop, website development etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 01/2014 – 12/2014 | Greece                         | <p>Greek General Secretariat of Research and Technology Bilateral Cooperation Greece – China” Programme</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p> | Technical consultant / Researcher | <p><u>Project: “New Lightweight and Nanotechnology Enhanced Bio-composites from Lignocellulosic Materials - FIBRACOM” funded by the Bilateral Cooperation Greece – China” Programme of the Greek General Secretariat of Research and Technology</u></p> <p>Work in the preparation and implementation of experimental cultivations for the supply of the biomass feedstock.</p>                                                                                                                                                                                                                                                                                                        |
| 01/2014 – 12/2014 | Greece, Jordan                 | <p>EU ENPI CBCMED Programme</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p>                                                                             | Technical consultant / Researcher | <p><u>Project: “Improving the environmental sustainability of irrigated agricultural production in Lebanon and Jordan – ENSIAP” funded by ENPI CBCMED Programme</u></p> <p>Design, sizing and preparation of feasibility studies of autonomous PV pumping systems, as well as their maintenance scheduling. Implementation of knowledge transfer activities, communication activities and the organization of a training workshop. Work in the carbon footprint study / climate action evaluation of the above-mentioned systems / investments in order to assess their environmental sustainability. TRNSYS and Homer Energy software packages were used to perform the analysis.</p> |
| 01/2014 – 12/2014 | Greece                         | <p>EU MED Programme</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p> <p>Contact: Katerina Bechraki,<br/><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a></p>                                                                                     | Technical consultant / Researcher | <p><u>Project: “SMARTinMED – Smart Interregional Cooperation Strategy for Innovation capacities in the Energy Sector on the MED area” funded by the MED Programme</u></p> <p>Provision of support for the organization of various communication, dissemination and knowledge transfer activities foreseen in the project (workshops, conferences etc.)</p>                                                                                                                                                                                                                                                                                                                             |
| 2/2012- 12/2013   | Greece<br>(Mission to Croatia) | <p>EU MED Programme</p> <p>through<br/>Centre of Renewable Energy Sources and Saving (CRES)</p>                                                                                                                                                                                   | Technical consultant / Researcher | <p><u>Project: “ENERMED – Mediterranean Renewable Energies” funded by the MED Programme.</u></p> <p>Design and implementation of a decision support toolkit for Renewable Energy investments based on computational intelligence paradigms taking into account climate change mitigation targets and overall environmental sustainability in the Mediterranean (coastal and island areas). This allowed the screening of renewable energy projects technically, economically and financially, environmentally</p>                                                                                                                                                                      |

# Dr. George Kyriakarakos CV

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|                   |                    | Contact: Katerina Bechraki,<br><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a>                                                                                                                                          |                                   | and socially. The toolkit was optimized based on consultation that took place through workshops with stakeholders for the optimization of the created decision support toolkit.<br>Finally, the toolkit was validated using real world data from the island of Crete in Greece.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6/2012- 12/2014   | Azerbaijan, Greece | Black Sea Economic Cooperation – Hellenic Development Fund<br><br>through<br>Centre of Renewable Energy Sources and Saving (CRES)<br><br>Contact: Katerina Bechraki,<br><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a> | Technical consultant / Researcher | <u>Project: “Greening Public Buildings in Azerbaijan: Promotion of Energy Efficient Materials and Technologies” funded by the Black Sea Economic Cooperation – Hellenic Development Fund</u><br>This project was concerned with market and policy analysis studies for the photovoltaic and the solar thermal technologies in Azerbaijan. Design through simulation of two building integrated PV systems and the feasibility studies that were installed in Azerbaijan. He also provided on-site technical assistance in the erection of the systems in the form of hands-on training as well as the scheduling of the PV systems maintenance. Preparation of a PV study which took into account shading from the various architectural elements for a system that was designed to be installed on a skyscraper in Baku, Azerbaijan. The study was prepared using TRNSYS, PVSyst and Homer Energy software packages. Participation in the planning and implementation of the communication activities of this project. |
| 2/2012 – 09/2015  | Greece             | European Economic Area grants<br><br>through<br>Centre of Renewable Energy Sources and Saving (CRES)<br><br>Contact: Katerina Bechraki,<br><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a>                              | Technical consultant              | <u>Project: “EEA Financial Mechanisms 2009-2014 -Programme Area: Renewable Energy” funded by European Economic Area grants</u><br>Centre of Renewable Energy Sources and Saving (CRES) is the Programme Operator of this Programme which is concerned with the development and management of nation-wide activities and projects in the field of Renewable Energy Technologies. Dr. G. Kyriakarakos participated in this project as a technical consultant and also was involved in the organization of a dissemination/communication workshop.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 02/2012 – 12/2012 | Greece             | EU MED Programme<br><br>through<br>Centre of Renewable Energy Sources and Saving (CRES)<br><br>Contact: Katerina Bechraki,<br><a href="mailto:bechraki@cres.gr">bechraki@cres.gr</a>                                           | Technical consultant / Researcher | <u>Project: “ELIH-MED – Energy Efficiency in Low Income Housing in the Mediterranean” funded by the MED Programme</u><br>Design and implementation of the monitoring and data acquisition system that was installed in the pilot buildings of the ELIH-MED project, as well as the design of the energy efficiency renovations of the buildings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10/2012 – 09/2015 | Greece             | Greek General Secretariat of Research and Technology<br>“ARISTEIA I” Programme                                                                                                                                                 | Technical consultant / Researcher | <u>Project: “Smart Desalination – Direct driven (battery-less) photovoltaic/wind turbine reverse osmosis desalination employing computational intelligence techniques” funded by the “ARISTEIA I” Programme of the Greek General Secretariat of Research and Technology</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Dr. George Kyriakarakos CV

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|-------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                                      | <p>through<br/>Agricultural University<br/>Athens</p> <p>Contact: Prof. George<br/>Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                                                                                                                    |                                      | <p>This project funded the post-doctoral research activities of Dr. G. Kyriakarakos. Development of the ICT computational intelligence algorithms of the energy management system, creation of a software platform for the design and sizing of autonomous PV desalination systems and was involved in the deployment of the data acquisition system. The software packages used include TRNSYS, Homer Energy, GenOPT, Matlab and Labview. Design and testing of a hybrid capacitors energy storage bank. Feasibility study and erection of the prototype autonomous desalination system and its experimental testing. Participation in the environmental assessment of the developed system and performed carbon footprint analysis. Contribution to the management of the activities of this project and supervised the activities relating to this project of two PhD candidates.</p> |
| 01/2011 – 12/2011 | Greece, Germany                                      | <p>Sharp Energy Solution<br/>Europe - a division of<br/>Sharp Electronics<br/>(Europe) GmbH</p> <p>through<br/>Agricultural University<br/>Athens</p> <p>Contact: Prof. George<br/>Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                    | Project Manager                      | <p><u>Project: “Experimental comparison of 4 different photovoltaic technologies” funded by Sharp Energy Solution Europe - a division of Sharp Electronics (Europe) GmbH</u></p> <p>This project was focused on the experimental evaluation of 4 PV technologies (mono-crystalline silicon, multi-crystalline silicon, CIS thin film and microamorphous silicon thin-film) under the climatic conditions of the Mediterranean Sea. Initially a data acquisition system was designed and implemented and then the technical and economical evaluation took place. PV system maintenance approaches were investigated.</p>                                                                                                                                                                                                                                                                 |
| 01/2011 – 12/2011 | Greece                                               | <p>Greek General<br/>Secretariat for Youth</p> <p>Department of<br/>Automation Engineering<br/>of the Piraeus University<br/>of Applied Sciences</p> <p>Contact: Assoc. Prof.<br/>Anastasios Dounis,<br/><a href="mailto:aidounis@uniwa.gr">aidounis@uniwa.gr</a></p> | Technical consultant /<br>Researcher | <p><u>Project: “Scientific Support of Young Farmers” funded by the Greek General Secretariat for Youth</u></p> <p>This project aimed at introducing new technologies in the agricultural production. Investigation of the implementation of Energy Efficiency and Renewable Energy interventions in agricultural buildings as well as completely autonomous agricultural buildings. Preparation of a study for the new trends in agricultural production in general, as well as precision agriculture in particular.</p>                                                                                                                                                                                                                                                                                                                                                                 |
| 10/2005 – 12/2009 | Egypt, Tunisia,<br>Morocco, Germany,<br>Spain Greece | <p>EU FP6 Programme</p> <p>through<br/>Agricultural University<br/>Athens</p> <p>Contact: Prof. George<br/>Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                                                                                            | Technical consultant /<br>Researcher | <p><u>Project: “Hybrid renewable energy systems for supplying services in rural settlements of Mediterranean partner countries” funded by the EC FP6 Programme</u></p> <p>Research contribution mainly concerned with the design and implementation of the intelligent control of the pilot polygeneration microgrid that was installed in Egypt. Creation of an ICT software platform for the design and sizing of autonomous microgrids, development of the feasibility studies and participation in the design of the microgrids that were installed in Morocco and Tunisia, as well</p>                                                                                                                                                                                                                                                                                              |

## Dr. George Kyriakarakos CV

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|-------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                                     |                                                                                                                                                                                                                                          |                                   | as the corresponding data acquisition systems. Investigation of hydrogen use for electricity storage. Contribution to the socio-economic appraisal of the microgrids. Involvement in the management of this project and was responsible for the preparation of the consortium's technical and financial reporting to the EC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 01/2007 – 01/2009 | Greece, France                                      | Greek General Secretariat of Research and Technology<br>International Cooperation programme<br><br>through<br>Agricultural University Athens<br><br>Contact: Prof. George Papadakis,<br><a href="mailto:gpap@aia.gr">gpap@aia.gr</a>     | Technical consultant / Researcher | <u>Project: "Development of a renewable energy polygeneration system to produce electricity, drinkable water and hydrogen" international cooperation project funded by the Greek General Secretariat of Research and Technology</u><br>This project funded the main infrastructure used for the experiments used in the preparation of the PhD thesis of Dr. G. Kyriakarakos. Apart from managing this project, he implemented a ICT software platform for the design and sizing of polygeneration microgrids, he designed the pilot polygeneration microgrid along with the feasibility study, which was then installed at the Agricultural University of Athens, he developed intelligent energy management schemes and finally he investigated them both in simulation and in the pilot microgrid. The system includes a hydrogen subsystem consisting of a PEM fuel cell, PEM electrolyzer and metal hydride tanks. The research outcomes of this project were used in the development of the PhD thesis. |
| 02/2005           | Greece<br>(Mission to Jordan)                       | EU MEDA programme<br><br>through<br>Agricultural University Athens<br><br>Contact: Prof. George Papadakis,<br><a href="mailto:gpap@aia.gr">gpap@aia.gr</a>                                                                               | Technical consultant / Researcher | <u>Project: "Autonomous Desalination system concepts for seawater and brackish water In Rural Areas with renewable energies – Potential, Technologies, Field Experience, Socio-technical and Socio-economic impacts" funded by the EC MEDA project</u><br>Technical evaluation of various water desalination systems installed in rural areas of the Mediterranean.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 01/2006 – 12/2007 | Greece, USA                                         | Greek General Secretariat of Research and Technology USA-Greece bilateral cooperation Programme<br><br>through<br>Agricultural University Athens<br><br>Contact: Prof. George Papadakis,<br><a href="mailto:gpap@aia.gr">gpap@aia.gr</a> | Technical consultant / Researcher | <u>Project: "Improvement of organic solar Rankine RO system performance by in depth investigation and assessment of physical and technical parameters strongly affect on" funded by the of the Greek General Secretariat of Research and Technology</u><br>Creation of a simulation model of the solar rankine Reverse Osmosis desalination system. He also took part in the management and communication activities of this project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10/2003 – 12/2006 | Greece (Missions to Germany, Czech Republic, Spain) | EU FP5 Programme<br><br>through                                                                                                                                                                                                          | Technical consultant / Researcher | <u>Project: "PV Enlargement" funded by the EU FP5 Programme</u><br>This project was concerned with the installation of building integrated PV systems. Design and supervision of the installation of 4 PV arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Dr. George Kyriakarakos CV

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|                                      |                                     | <p>Agricultural University Athens</p> <p>Contact: Prof. George Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                                                               |                                          | <p>consisting of 3 technologies of PV modules (mono-crystalline silicon, multi-crystalline silicon, CIS thin film). Implemented the data acquisition system of these arrays. Experimental evaluation of the performance of the 3 technologies. Involvement in the management and communication/dissemination activities of this project.</p>                                                                                                                                                                                                                                                                                                    |
| <p>06/2003<br/>11/2004 – 01/2005</p> | <p>Greece (Mission to Portugal)</p> | <p>EU SAVE II- Project through Agricultural University Athens</p> <p>Contact: Prof. George Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p>                                   | <p>Technical consultant / Researcher</p> | <p><u>Project: “5E in Universities” funded by the EC SAVE II- Project.</u><br/>The main goal of this project was to decrease the energy consumption of Universities through energy efficiency interventions. Logging of all office equipment power consumption at the Agricultural University of Athens through onsite visits. Based on the collected data he prepared the energy consumption profile of the university. The analysis of this data was used for the preparation of guidelines documents in order to lower the power consumption, as well as the creation of guidelines for office equipment procurement for the university.</p> |
| <p>05/2000</p>                       | <p>Greece</p>                       | <p>EC DG XII – DG XVII, INCO-COPERNICUS Programme</p> <p>through Agricultural University Athens</p> <p>Contact: Prof. George Papadakis,<br/><a href="mailto:gpap@aua.gr">gpap@aua.gr</a></p> | <p>Technical consultant / Researcher</p> | <p><u>Project: “Development and application of a water pumping system for remote areas consisted of photovoltaic modules with inverters integrated onto the modules and a new type of an asynchronous pump motor” funded by the EC DG XII – DG XVII, INCO-COPERNICUS Programme</u><br/>In the framework of this project, Dr. G. Kyriakarakos investigated various approaches used for pumping water with photovoltaics and created simulation models for PV – pumping systems. Part of this work was used in the development of his Diploma Thesis.</p>                                                                                         |

15. Other relevant information (e.g., Publications)

*Research Indicators*

The total number of **citations excluding own citations** is over **2160**. The **h-index** as has been defined by Hirsch is calculated to be **20** and the **g-index** as has been defined by Egghe is calculated to be **46**.

*Official Regulatory documents*

1. Strategy for a Harmonized Continental Regulatory Framework for the Electricity Sector in Africa (2016)
2. Action Plan for a Harmonized Continental Regulatory Framework for the Electricity Sector in Africa (2016)
3. Guidelines for Institutional and policy model for micro- / mini-grids (2018)
4. Guidelines for -Minimum Energy Performance Standards (MEPS) Energy Labelling and Eco-Design at the Continental Level" (2019)
5. Guide for policy makers on developing Quality Assurance frameworks for off-grid appliances in Africa (2020)
6. Strategy and Roadmap for Smart Distribution Grids in Africa (2021)
7. Strategy and Roadmap for Establishing a Market for Energy Efficient Appliances in Africa - AfCFTA and AU-EU Initiative of Harmonization of the Electricity market in Africa (2021)
8. African Union Post-COVID-19 Recovery Strategy and Action Plan for the African Energy Sector along with its implementation and M&E framework (2021).
9. African Union Energy Efficiency Strategy and Action Plan (2024)
10. African Union Energy Transition Strategy and Action Plan (2025)

The above documents have been adopted by the Energy Ministers of the African Union and the Heads of State and Government of the African Union.

*Publications In Peer-reviewed Scientific Journals*

1. **Kyriakarakos G.**, *Bridging the AI–Energy Paradox: A Compute-Additionality Covenant for System Adequacy in Energy Transition*, **Sustainability** **2025**, 17(21), 9444.
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4. **Kyriakarakos G., Lindeque C., Shafudah N., Balafoutis A.**, *Carbon Carriers Driving the Net-Zero Future: The Role of Torrefied Biomass Pellets in Power-To-X*, **Sustainability** **2024**, 16(21), 9200
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7. **Kyriakarakos, G., Balafoutis, A. T., Vaiopoulos, K., Abdul, M., Voskakis, M., Kaminariis, M. Tsiropoulos Z., Bochtis, D.**, *"Design and Implementation of a Decision Support Tool to assist the ranking of fossil-energy-free technologies and strategies for a given farm."* **Smart Agricultural Technology**, **2023**, 100169.
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10. **Kyriakarakos, G.; Papadakis, G., and Karavitis CA.**, *Renewable Energy Desalination for Island Communities: Status and Future Prospects in Greece*, **Sustainability**, **2022**, 14(13), 8176
11. **Paris B., Vadorou F., Tyris. D., Balafoutis AT, Vaiopoulos K., Kyriakarakos G., Manolakos D., Papadakis G.**, *Energy Use in Greenhouses in the EU: A Review Recommending Energy Efficiency Measures and Renewable Energy Sources Adoption*, **Applied Sciences**, **2022**, 12(10), 5150

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6. G. Kyriakarakos, Ashton Swartbooi, Luanita Snyman-van der Walt, Henrik Uehlecke, Pre-Feasibility Study on Lighthouse Technology Methanol – South Africa, **GIZ**, 2024
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Reviewer of the following international scientific journals

Member of the Editorial Board of Sustainability journal (I.F. 3.9), MDPI

Associate Editor of Frontiers in Energy Efficiency journal (First published 2022), Frontiers

## Dr. George Kyriakarakos CV

and reviewer of:

|                                                               |                                                                                          |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 1. Applied Energy, Elsevier                                   | 20. Environmental Progress & Sustainable Energy, Wiley                                   |
| 2. Renewable and Sustainable Energy Reviews, Elsevier         | Ecological Modelling, Elsevier Sustainable Cities and Environment, Elsevier              |
| 3. Energy Conversion and Management, Elsevier                 | 21. International Environmental Agreements: Politics, Law and Economics, Springer        |
| 4. Renewable Energy, Elsevier                                 | 22. Energies, MDPI                                                                       |
| 5. Joule, Cell Press                                          | 23. Sustainability, MDPI                                                                 |
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| 13. Applied Soft Computing, Elsevier                          | 31. Journal of Computer Engineering & Information Technology, SciTechnol                 |
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